DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY OPERATING PERMIT

Permit No. 325TVP01 Issue Date: May 29, 2002
Application No. A000325 Expiration Date: May 29, 2007
Significant Revision 1: February 13, 2003

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, **OIT, Inc.**, for the operation of the **Moose Creek Facility**.

This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b).

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating permit.

All facility-specific terms and conditions of Air Quality Control Permit-to-Operate 9531-AA008 have been incorporated into this Operating Permit.

John F. Kuterbach, Manager

Air Permits Program

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List of Abbreviations Used in this Permit

AAC .....Alaska Administrative Code
ADEC.....Alaska Department of Environmental Conservation
AS.....Alaska Statutes
ASTM.....American Society for Testing and Materials
C.F.R. .....Code of Federal Regulations
COMS .....Continuous Opacity Monitoring System
dscf.....Dry standard cubic feet
EPA .....US Environmental Protection Agency
gr./dscf.....grain per dry standard cubic feet (1 pound = 7000 grains)
GPH.....gallons per hour
HAPs .....Hazardous Air Pollutants [hazardous air contaminants as defined in AS 46.14.990(14)]
ID.....Source Identification Number
kPa.....kiloPascals
MACT .....Maximum Achievable Control Technology
NESHAPs.....Federal National Emission Standards for Hazardous Air Pollutants [as defined in 40 C.F.R. 61]
NSPS.....Federal New Source Performance Standards [as defined in 40 C.F.R. 60]
ppm.....Parts per million
PS .....Performance specification
PSD .....Prevention of Significant Deterioration
RM.....Reference Method
SIC. .....Standard Industrial Classification
SO_2.....Sulfur dioxide
TPH.....Tons per hour
TPY .....Tons per year
VOC.....volatile organic compound [as defined in 18 AAC 50.990(103)]
wt%.....weight percent

Section 1. Identification

Names and Addresses

Permittee:	**OIT, Inc.** P.O. Box 55878 North Pole, Alaska 99705-5878
Facility:	**Moose Creek Facility**
Location:	64° 42′ 50″ North; 147° 08′ 17″ West
Physical Address:	3520 Old Richardson Highway North Pole, Alaska 99705
Owner:	OIT, Inc. P.O. Box 55878 North Pole, Alaska 99705-5878
Operator:	OIT, Inc. P.O. Box 55878 North Pole, Alaska 99705-5878
Permittee's Responsible Official:	Mark W. Sanford, Vice-President of Operations
Designated Agent:	Sam V. Myers, Compliance Officer P.O. Box 55878 North Pole, Alaska 99705-5878
Facility and Building Contact:	Sam V. Myers, Compliance Officer P.O. Box 55878 North Pole, Alaska 99705-5878 (907) 488-4899 mailto:oitinc@ptialaska.net
Fee Contact:	OIT Accounting Office Attn: Darcy Carney 3900 C Street, Suite 302 Anchorage, AK 99503-5965

SIC Code of the Facility:

4953 - Incinerator Operation
4959 - Sanitary Services, Not Elsewhere Classified

[18 AAC 50.350(b), 1/18/97]

Section 2. General Emission Information

Emissions of Regulated Air Contaminants, as provided in the Permittee's application:

- Particulate matter, sulfur dioxide, nitrogen oxide, carbon monoxide, volatile organic compounds, lead, beryllium and mercury

Facility Classifications:

(1) 18 AAC 50.300(b)(1)(A) [industrial process with a total rated capacity > 5 tons/hr]

(2) 18 AAC 50.300(b)(3) [incinerator with a total combined rated capacity of ≥1000 lbs/hr]

Operating Permit Classifications:

(1) 18 AAC 50.325(c) [facility described in 18AAC50.300(b)-(e) within AS 46.14.130(b)(4)]

[18 AAC 50.350(b)(1), 1/18/97]

Section 3. Fee Requirements

1. General. The Permittee shall pay assessed fees in accordance with AS 46.14.240 -- 250 and 18 AAC 50.400 -- 420.

[18 AAC 50.350(c) & 18 AAC 50.400 – 420, 1/18/97]

2. Assessable Emissions. The Permittee shall pay to the department an annual emission fee based on the facility's assessable emissions. The assessable emission fee rate is listed in 18 AAC 50.410(b). The department will assess fees for each ton of air contaminants that the facility emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is either

2.1 the facility's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon previous actual annual emissions, when demonstrated by:

a. an enforceable test method described in 18 AAC 50.220;

b. material balance calculations;

c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or

d. other methods and calculations approved by the department; OR

2.2 the facility's assessable potential to emit of 100 tpy (22 tons of NO_X, 78 tons of SO_2, 0 tons of PM_{10}, 0 tons of VOC, and 0 tons of CO).

[18 AAC 50.350(c) & 18 AAC 50.410, 1/18/97]

3. Assessable Emission Estimates. Emission fees will be assessed as follows:

3.1 No later than March 31 of each year, the Permittee may submit an estimate of the facility's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emission Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795. The submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the department can verify the estimates, or

3.2 If no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in condition 2.2.

[18 AAC 50.350(c) & 18 AAC 50.410, 1/18/97]

Section 4. Source Inventory and Description

Sources listed below have specific monitoring, record keeping, or reporting conditions in this permit. Source descriptions and ratings are given for identification purposes only.

TABLE 1 Source Inventory

ID	Source Name	Source Description	Rating/size	Install Date
1	• Aqua Guard Technologies, Inc. Thermal Oxidizer Mark III Rotary Kiln Serial # AG 91-MK III/4	Rotary Kiln	30 Tons/hour	1991
	• Maxon Multi-fire Kiln Burner	Kiln Burner	15 MMBtu/hr	1991
	• Maxon Kinemak Secondary Burner	Secondary Burner	8 MMBtu/hr	1991
	• Hosokawa Micron Mikro-Pulsaire Dust Collector Baghouses (2)	Baghouses	9’-9” x 10’-4” 480 bags	1991

Section 5. Source-Specific Requirements

Visible Emissions

4. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Source ID 1 to reduce visibility through the exhaust effluent by greater than 20% for more than three minutes in any one hour.

[18 AAC 50.050(a)(2), 1/18/97]
[18 AAC 50.055(a)(1), 1/18/97]

4.1 Install, calibrate, operate, and maintain a continuous opacity monitoring system (COMS) within six months from the issue date of this permit, and measure, record, and report the opacity through the incinerator unit exhaust stack according to condition 5.

[Permit #9531-AA008, condition 38, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

4.2 Whenever the COMS is inoperable, monitor, record, and report in accordance with Section 6.

[18 AAC 50.350(g) – (i), 1/18/97]

5. Except during COMS breakdown, repairs, calibration checks, and zero and span adjustments, complete at least one cycle of sampling and analyzing for each successive 10-second period of source operation. Calculate and record the average opacity for successive one-minute periods from these data.

5.1 At least once daily, conduct a zero and span check in accordance with condition 28. Adjust zero and span whenever the zero or span drift exceeds 4% opacity in a 24-hour period. If the COMS has auto calibration and zero features, then monitor the results of the auto calibrations and record instances when the zero or span drift exceeds 4% in a 24-hour period.

5.2 At least once each operating hour, review the opacity strip chart recorders for potential exceedances of the 20% opacity limit. If opacity exceeds 20%, then promptly initiate corrective actions. Corrective actions include, but are not limited to:

a. Adjustment of incinerator operating parameters; adjustment of the loading rate and/or the composition of the waste stream charged into the incinerator; and

b. Adjustment of the airflow rate into the incinerator.

[18 AAC 50.040(a)(4), 7/1/01; 18 AAC 50.350(d)(1)(C), 6/21/98, & 18 AAC 50.350 (g)-(h), 5/3/02]

5.3 Each operating day, monitor and record:

a. The time periods when the opacity exceeds 20%; and

b. The time periods when the COMS is offline during incinerator operation and the reason that the COMS is offline.

[18 AAC 350(g)-(h), 5/3/02]

5.4 Report under condition 68 if:

a. Four or more one-minute block average opacities in any one-hour period measured by the COMS are greater than 20%; or

5.5 If the COMS is offline for more than 72 hours, submit a summary of COMS outages with the report required by condition 70, and include:

(i) The anticipated time to repair or replace the COMS,

(ii) The cause of the malfunction, and

(iii) Time periods the incinerator operated while the COMS was offline.

[18 AAC 50.350(i), 5/3/02]

Particulate Matter

6. Permittee shall not cause or allow particulate matter emitted from Source ID 1 to exceed 0.08 grains per cubic foot of exhaust gas corrected to 12 percent CO_2 and standard conditions, averaged over three hours.

[18 AAC 50.050(b), 1/18/97]

6.1 Monitor, record, and report in accordance with conditions 25 through 27.

[18 AAC 50.350(g) – (i), 1/18/97]

7. Permittee shall not cause or allow particulate matter emitted from Source ID 1 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b), 1/18/97]

7.1 Monitor, record, and report in accordance with conditions 25 through 27.

[18 AAC 50.350(g) – (i), 1/18/97]

Sulfur Compound Emissions

8. In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from Source ID 1 to exceed 500 ppm averaged over three hours.

[18 AAC 50.346(c), 5/3/02; 18 AAC 50.055(c), 1/18/97; and 18 AAC 50.350(d)(1)(C), 6/21/98]

8.1 The Permittee shall do one of the following for each shipment of fuel:

a. If the fuel grade requires a sulfur content less than 0.5 percent by weight, keep receipts that specify fuel grade and amount; or

b. If the fuel grade does not require a sulfur content less than 0.5 percent by weight, keep receipts that specify fuel grade and amount and

(i) test the fuel for sulfur content; or

(ii) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent.

8.2 Fuel testing under condition 8.1 must follow an appropriate method listed in 18 AAC 50.035 or another method approved in writing by the Department.

8.3 If a load of fuel contains greater than 0.75 percent sulfur by weight, the Permittee shall calculate SO_2 emissions in ppm using either Section 16 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

8.4 The Permittee shall report as follows:

a. If SO_2 emissions calculated under condition 8.3 exceed 500 ppm, the Permittee shall report under condition 68. When reporting under this condition, include the calculation under Section 16.

b. The Permittee shall include in the report required by condition 70:

(i) a list of the fuel grades received at the facility during the reporting period;

(ii) for any grade with a maximum fuel sulfur greater than 0.5 percent sulfur, the fuel sulfur content of each shipment; and

(iii) for fuel with a sulfur content greater than 0.75 percent, the calculated SO_2 emissions in ppm.

[18 AAC 50.346(c) & 350(g) - (i), 5/3/02]

Used Oil

9. Permittee shall not burn Off-Spec used oil in Source ID 1.

9.1 Permittee may blend On-Spec used oil with virgin hydrocarbon fuels used in the primary and secondary burner.

9.2 Permittee will report, per condition 70:

(i) Gallons of used oil burned per month

(ii) Maximum and minimum blending ratio of used oil to fuel oil

(iii) Sulfur content of each batch of used oil fuel.

[Permit #9531-AA008, condition 6 and exhibit E, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

9.3 Analyze a representative sample of each batch of used oil using SW-846 test methods for arsenic, lead, cadmium, chromium, total halogens, flash point, and polychlorinated biphenyls (PCBs), prior to blending with the virgin fuel oil. Keep records of each analysis, measurement, and calculation. A batch is a definite quantity of homogeneous samples collected under conditions that are considered uniform.

[18 AAC 50.030 and 18 AAC 50.110, 1/18/97]

10. The virgin fuel fired at the facility shall have a sulfur content equal to or less than 0.5% by weight.

[Permit #9531-AA008, condition 7, 3/18/96]
[18 AAC 50.350(d)(1)(D), 6/21/98]

11. Permittee shall install, operate, and maintain, in good working order, a continuous system for recording and monitoring all fuel consumed in Source ID 1. Instrument accuracy shall be ±5%.

[Permit #9531-AA008, Exhibit D, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

Process Monitoring

12. Prior to adding material to the unit, and for 5 minutes after the burner is shut off, heat and maintain the afterburner temperature to at least 1500° F. Secondary combustion core temperature shall be maintained within ±5%, using any method in which accuracy can be verified or guaranteed.

[Permit #9531-AA008, condition 8 and Exhibit D, 3/18/96]
[18 AAC 50.350(d)(1)(D), 6/21/98]

12.1 Monitor and record the temperature according to condition 29.1d.

[18 AAC 50.350(g) – (i), 5/3/02]

13. Permittee shall operate the incinerator unit at a capacity no greater than 30 tons per hour unless a source test demonstrates compliance at a higher rate.

[Permit #9531-AA008, condition 13, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

13.1 Monitor, record and report according to condition 15.

[18 AAC 50.350(g) – (i), 5/3/02]

14. Permittee shall install, calibrate, operate, and maintain a continuous feed rate monitoring system for recording, on an hourly basis, the burning rate of the various solids.

14.1 Report per condition 70:

a. Hours operated per month;

b. Tons of soil processed per month, and maximum one hour rate each month;

c. Pounds of absorbent combusted per month.

[Permit #9531-AA008, condition 39 and Exhibit E, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

15. Process feed rates shall be measured to determine compliance with the rate limits in condition 13. Permittee shall install, operate, and maintain, in good working order, a system for recording and monitoring all contaminated soil treated. Feed rate shall be recorded hourly. If any feed rate monitor is malfunctioning or non-operable for three or more consecutive days (consecutive 72 hour period), Permittee shall notify the department indicating the cause of the failure and anticipated time required to repair or replace the instrument. Report excess emissions per condition 68.

[Permit #9531-AA008, condition 43 and Exhibit D, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

16. Permittee shall maintain a minimum pressure drop range across the baghouses at all times for which source testing demonstrates compliance.

[Permit #9531-AA008, condition 14, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

16.1 Permittee shall record and report to the Department within 30 days after the issuance date of this permit the pressure drop range across the baghouses for which source testing demonstrates compliance. The Permittee shall reference the source test dates in the report.

[18 AAC 50.350(g) – (i), 5/2/02]

16.2 Permittee shall have an indicating manometer installed for measuring the gas side pressure drop across the baghouses.

[Permit #9531-AA008, condition 11, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

a. Permittee shall continuously monitor and record the pressure drop across the gas side of the control device and record representative values for each day of operation as stipulated in condition 16.2b. Report excess emissions per condition 68.

[Permit #9531-AA008, conditions 11 and 37, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

b. Report per condition 70 the maximum, minimum, and daily average for each operating day and the manufacturer's specifications. Report to only nearest 0.1 inches of water column.

[Permit #9531-AA008, Exhibit E, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

17. Permittee shall have on-site new replacement bags for the baghouses equal to or greater than 10 percent of the total number of bags used in the baghouses. Replacement bags that are subsequently installed shall be replaced within 30 days. Report excess emissions per condition 68 if the number of bags on-site drops below 10 percent.

[Permit #9531-AA008, condition 12, 3/18/97 and 18 AAC 50.350(d)(1)(D)]

18. Permittee shall not treat contaminated soils with a fines content (200 mesh) greater than 53.4% unless baghouse loading calculations or a source test demonstrates compliance at a higher concentration. Contaminated soils refers to soils mingled with hydrocarbon fuels and oils, Therminol 44, and AFFF (fire fighting foam) residue. This does not release Permittee from complying with condition 21.

[Permit #9531-AA008, conditions 15, 16 and Exhibit E, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

18.1 The Permittee shall either assume that the fines content is 100%, or perform a dry sieve analysis, or designate an employee who has demonstrated experience in visually judging soil characteristics and grading to determine that the approximate fines content (200 mesh) in a batch of contaminated soil is 10% or less.

18.2 Report in accordance with condition 70 the fines content (200 mesh) of each batch of product to be incinerated that the designated employee determines is 10% fines or more during the reporting period.

18.3 Report the following in accordance with condition 70 for each batch of product to be incinerated that the designated employee determines is less than 10% fines during the reporting period:

a. the name, title, and a brief description of the experience of the person who made the determination;

b. the primary constituent(s) of the products being incinerated (e.g., absorbent pads, gravel, sand, silt and clay, etc.).

18.4 Before incinerating material greater than the limit in condition 18, the Permittee shall limit the incinerator processing rate to the following:

R_{limit} = 0.05 gr/dscf * F_{test} * R_{test} * (1 - SF) / (Factual * PM_{test})

R_{limit} = Incinerator processing rate limit (tons/hr)

F_{test} = Fines content during the most recent source test (%)

R_{test} = Incinerator processing rate during the most recent source test (tons/hr)

SF = Safety Factor = 0.25 (no units)

Factual = Fines content that the Permittee would like to incinerate (%)

PM_{test} = particulate matter concentration (gr/dscf, three-hour average)

Example 1: The most recent facility source test shows compliance with the particulate matter standard at an incineration rate of 16.1 tons/hr at 53.4% fines and 0.019 gr/dscf (three-hour average). The Permittee assumes there are 100% fines in the sample to be incinerated. The Permittee could incinerate this material if the incinerator processing rate is below the following:

R_{limit} = 0.05 gr/dscf * 53.4% * 16.1 tons/hr * (1 - 0.25) / (100% * 0.019 gr/dscf) = 17.0 tons/hr

Example 2: The most recent source test shows compliance with the particulate matter standard at an incineration rate of 12.9 tons/hr at 30.7% fines and 0.045 gr/dscf (three-hour average). The Permittee wants to incinerate a material that was measured by a dry sieve analysis to have a 55.0% fines content. The Permittee could incinerate this material if the incinerator processing rate is below the following:

R_{limit} = 0.05 gr/dscf * 30.7% * 12.9 tons/hr * (1 - 0.25) / (55.0% * 0.045 gr/dscf) = 6.0 tons/hr

[18 AAC 50.350 (g)-(i), 5/2/02]

Excluded Wastes

19. Since Permittee has requested a shield from 40 CFR 60 Subpart E, Permittee shall not process any solid waste as defined in 40 CFR 60.51. Solid Waste means refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock.

[18 AAC 50.335(g)(1) & 18 AAC 50.350(e)(3), 1/18/97]

20. Since Permittee has requested a shield from 40 CFR 60 Subpart O, Permittee shall not combust wastes containing more than 10 percent sewage sludge as defined under 40 CFR 60.151 and 40 CFR 60, subpart A. Sewage sludge is any solid, semi-solid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced waste water treatment, scum, septage, portable toilet pumpings, type III marine sanitation device pumpings, and sewage sludge products. The department does not consider aggregate rock and soil to be waste.

[18 AAC 50.335(g)(1) & 18 AAC 50.350(e)(3), 1/18/97]

21. Permittee shall not process any material that meets the definition of Hazardous Waste under 40 CFR 261, 18 AAC 62, or requires Federal authorization for treatment under the Toxic Substances Control Act. The Permittee may not process any household hazardous waste or conditionally exempt small quantity generator hazardous waste, even though these wastes are exempt or conditionally exempt from hazardous waste regulation.

[Permit #9531-AA008, condition 3, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

Section 6. Visible Emissions and PM Monitoring, Recordkeeping and Reporting

22. Visible Emissions Monitoring. As a back-up method when the COMS is inoperable, the Permittee shall observe the exhaust of Source ID 1 for visible emissions using either the Method 9 Plan under condition 22.1 or the Smoke/No-Smoke Plan under condition 22.2. The Permittee may change visible-emissions plans for a source at any time unless prohibited from doing so by condition 22.3.

[18 AAC 50.350(g), 1/18/97 & 50.346(c), 5/3/02]

22.1 **Method 9 Plan.** For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.

a. First Method 9 Observation. Observe exhaust for 18 minutes within six months after the issue date of this permit or within 14 calendar days after changing from the Smoke/No-Smoke Plan of condition 22.2, whichever is later.

b. Monthly Method 9 Observations. After the first Method 9 observation, perform 18-minute observations at least once in each calendar month that a source operates.

c. Semiannual Method 9 Observations. After observing emissions for three consecutive operating months under condition 22.1b, unless a six-minute average is greater than 15 percent and one or more observations are greater than 20 percent, observe emissions at least semiannually for 18 minutes.

Semiannual observations must be taken between four and seven months after the previous set of observations.

d. Annual Method 9 Observations. After at least two semiannual 18-minute observations, unless a six-minute average is greater than 15 percent and one or more individual observations are greater than 20 percent, observe emissions at least annually.

Annual observations must be taken between 10 and 13 months after the previous observations and must include at least three 18-minute sets of observations.

e. Increased Method 9 Frequency. If a six-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more observations are greater than 20 percent, then increase or maintain the 18-minute observation frequency for that source to at least monthly intervals, until the criteria in condition 22.1c for semiannual monitoring are met.

22.2 **Smoke/No Smoke Plan.** Observe the exhaust for the presence or absence of visible emissions, excluding condensed water vapor.

a. Initial Monitoring Frequency. Observe the exhaust during each calendar day that a source operates.

b. Reduced Monitoring Frequency. After the source has been observed on 30 consecutive operating days, if the source operated without visible smoke in the exhaust for those 30 days, then observe emissions at least once in every calendar month that a source operates.

c. Smoke Observed. If smoke is observed, either begin the Method 9 Plan of condition 22.1 or perform the corrective action required under condition 22.3.

22.3 **Corrective Actions Based on Smoke/No Smoke Observations.** If visible emissions are present in the exhaust during an observation performed under the Smoke/No Smoke Plan of condition 22.2, then the Permittee shall either follow the Method 9 plan of condition 22.1 or

a. initiate actions to eliminate smoke from the source within 24 hours of the observation;

b. keep a written record of the starting date, the completion date, and a description of the actions taken to reduce smoke; and

c. after completing the actions required under condition 22.3a,

(i) take Smoke/No Smoke observations in accordance with condition 22.2

(a) at least once per day for the next seven operating days and until the initial 30 day observation period is completed; and

(b) continue as described in condition 22.2b; or

(ii) if the actions taken under condition 22.3a do not eliminate the smoke, or if subsequent smoke is observed under the schedule of condition 22.3c(i)(a), then observe the exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan; after observing smoke and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates smoke and restart the Smoke/No Smoke Plan under condition 22.2a.

23. Visible Emissions Recordkeeping. The Permittee shall keep records in accordance with this condition 23.

[18 AAC 50.350(h) & 50.346(c), 5/3/02]

23.1 If using the Method 9 Plan of condition 22.1

a. the observer shall record

(i) the name of the facility, emissions source and location, facility type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet in Section 15.

(ii) the time, estimated distance to the emissions location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate) on the sheet at the time opacity observations are initiated and completed;

(iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;

(iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation in Section 15, and

(v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period;

b. to determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet;

23.2 If using the Smoke/No Smoke Plan of condition 22.2, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:

a. the date and time of the observation;

b. from Table 1, the ID of the source observed;

c. whether visible emissions are present or absent in the exhaust;

d. a description of the background to the exhaust during the observation;

e. if the source starts operation on the day of the observation, the startup time of the source;

f. name and title of the person making the observation; and

g. operating rate (load or fuel consumption rate).

24. Visible Emissions Reporting. The Permittee shall report visible emissions as follows:

[18 AAC 50.350(i), 1/18/97 & 50.346(c), 5/3/02]

24.1 include in each facility operating report under condition 70

a. which visible-emissions plan of condition 22 was used for each source; if more than one plan was used, give the time periods covered by each plan;

b. for each source under the Method 9 Plan,

(i) copies of the observation results (i.e. opacity observations) for each source that used the Method 9 Plan, except for the observations the Permittee has already supplied to the Department; and

(ii) a summary to include:

(a) number of days observations were made;

(b) highest six-minute average observed; and

(c) dates when one or more observed six-minute averages were greater than 20 percent;

c. for each source under the Smoke/No Smoke Plan, the number of days that Smoke/No Smoke observations were made and which days, if any, that smoke was observed; and

d. a summary of any monitoring or record keeping required under conditions 22 and 23 that was not done;

24.2 report under condition 68:

a. the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and

b. if any monitoring under condition 22 was not performed when required, report within three days of the date the monitoring was required.

25. Particulate Matter Monitoring. The Permittee shall conduct source tests on Source ID 1 to determine the concentration of particulate matter (PM) in the exhaust of a source in accordance with this condition 25.

[18 AAC 50.350(g), 1/18/97 & 50.346(c), 5/3/02]

25.1 Within six months of exceeding the criteria of condition 25.2a or 25.2b, either

a. conduct a PM source test according to requirements set out in Section 11; or

b. make repairs so that emissions no longer exceed the criteria of condition 25.2; to show that emissions are below those criteria, observe emissions as described in condition 22.1 under load conditions comparable to those when the criteria were exceeded.

25.2 Conduct the test according to condition 25.1 if

a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent; or

b. for a source with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the Department has waived this requirement in writing.

25.3 During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run. Submit a copy of these observations with the source test report.

25.4 The automatic PM source test requirement in conditions 25.1 and 25.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

26. Particulate Matter Record Keeping. Within 180 calendar days after the effective date of this permit, the Permittee shall record the exhaust stack diameter(s) of Source ID 1. Report the stack diameter(s) in the next operating report under condition 70.

[18 AAC 50.350(h) & 50.346(c), 5/3/02]

27. Particulate Matter Reporting. The Permittee shall report as follows:

[18 AAC 50.350(i), 1/18/97 & 50.346(c), 5/3/02]

27.1 report under condition 68

a. the results of any PM source test that exceeds the PM emissions limit; or

b. if one of the criteria of condition 25.2 was exceeded and the Permittee did not comply with either condition 25.1a or 25.1b, this must be reported by the day following the day compliance with condition 25.1 was required;

27.2 report observations in excess of the threshold of condition 25.2b within 30 days of the end of the month in which the observations occur;

27.3 in each facility operating report under condition 70, include

a. the dates, Source ID(s), and results when an observed 18-minute average was greater than an applicable threshold in condition 25.2;

b. a summary of the results of any PM testing under condition 25; and

c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of condition 25.2, if they were not already submitted.

[18 AAC 50.350 (g – i) 5/3/02]

Section 7. Performance Audits for COMS

28. Performance Audits. The following elements shall be included in performance audits for Continuous Opacity Monitoring Systems (COMS), unless the Department gives written approval for unit-specific audit procedures.

[18 AAC 50.350(g), 1/18/97 & 50.030(9), 5/3/02]

28.1 **Optical Alignment Assessment.** The status of the optical alignment of the monitor components shall be checked and recorded according to the procedures specified by the monitor manufacturer. Realign as necessary.

28.2 **Zero and Upscale Response Assessment.** The zero and upscale response errors shall be determined and recorded according to the calibration drift procedures of 8.1(4)(i) and (ii) in 40 C.F.R. 60, Appendix B, Performance Specification 1 (PS-1), adopted by reference in 18 AAC 50.040(a). The error is defined as the difference (in percent opacity) between the correct value and the observed value for the zero and high-level calibration checks.

28.3 **Zero Compensation Assessment.** The value of the zero compensation applied at the time of the audit shall be calculated as equivalent opacity, corrected to stack exit conditions as necessary, according to the procedures specified by the manufacturer. Record the compensation applied to the effluent recorded by the monitor system.

28.4 **Calibration Error Check.** Conduct a three-point calibration error test using three calibration attenuators that produce outlet pathlength corrected, single-pass opacity values shown in ASTM D 6216-98, section 7.5, adopted by reference in 18 AAC 50.035(c). If the applicable limit is less than 10 percent opacity, use attenuators as described in ASTM D 6216-98, section 7.5 for applicable standards of 10 to 19 percent opacity. Confirm the external audit device produces the proper zero value on the COMS data recorder. Separately, insert each calibration attenuator (low, mid, and high-level) into the external audit device. While inserting each attenuator, (1) ensure that the entire light beam passes through the attenuator; (2) minimize interference from reflected light; and (3) leave the attenuator in place for at least two times the shortest recording interval on the COMS data recorder. Make a total of five nonconsecutive readings for each attenuator. At the end of the test, correlate each attenuator insertion to the corresponding value from the data recorder. Subtract the single-pass calibration attenuator values corrected to the stack exit conditions from the COMS responses. Calculate the arithmetic mean difference, standard deviation, and confidence coefficient of the five measurements value using equations 1-3, 1-4, and 1-5 of PS-1. Calculate the calibration error as the sum of the absolute value of the mean difference and the 95 percent confidence coefficient for each of the three test attenuators using equation 1- 6 of PS-1. Report the calibration error test results for each of the three attenuators.

28.5 **Zero Alignment Assessment.** Compare the COMS simulated zero to the actual clear path zero of the installation. The assessment may be conducted in conjunction with, but prior to, other performance audit elements.

a. **Primary Zero Alignment Method.** The primary zero alignment shall be performed under clear path conditions. This may be accomplished if the process is not operating and the monitor pathlength is free of particulate matter or the monitor may be removed from its installation and set up under clear path conditions. The absence of particulate matter shall be demonstrated prior to conducting the test at the installed site. No adjustment to the monitor is allowed other than the establishment of the proper monitor pathlength and correct optical alignment of the monitor components. Record the monitor response to a clear path condition and to the monitor's simulated zero condition as percent opacity corrected to stack exit conditions as necessary. For monitors with automatic zero compensation, disconnect or disable the zero compensation mechanism or record the amount of correction applied to the monitor's simulated zero condition. The response difference in percent opacity to the clear path and simulated zero conditions shall be recorded as the zero alignment error. Adjust the monitor's simulated zero device to provide the same response as the clear path condition. Restore the COMS to its operating mode.

b. **Alternate Zero Alignment Method.** Monitors capable of allowing the installation of an external, removable zero-jig may use the equipment for an alternative zero alignment provided that the zero-jig setting is established for the monitor pathlength and recorded for the specific COMS by comparison of the COMS responses to the installed zero-jig and to the clear path condition. The zero-jig is shown to be capable of producing a consistent zero response when it is repeatedly (i.e., three consecutive installations and removals prior to conducting the final zero alignment check) installed on the COMS. The zero-jig setting shall be permanently set at the time of the initial COMS zeroing to the clear path zero value and protected when not in use to ensure that the setting equivalent to zero opacity does not change. The zero-jig setting shall be checked and recorded prior to initiating the zero alignment. Source owners and operators that employ a zero-jig shall perform a primary zero alignment audit once every three years.

Section 8. Continuous Emission Monitoring Requirements

29. The Permittee shall not cause or allow the hourly average of carbon monoxide (CO) concentration emitted from Source ID 1 to exceed 100 ppm by volume, corrected to 7 percent oxygen, one hour average based on 5 minute average measurements by the Continuous Emission Monitor (CEM). Report per condition 68 if this concentration is exceeded.

[Permit #9531-AA008, Exhibit B and C, 3/18/96]
[18 AAC 50.350(d)(1)(D), 6/21/98]

29.1 Permittee shall install, calibrate, operate, and maintain a continuous emission monitoring system to measure and record the emissions of carbon monoxide (CO) and oxygen (O_2) through the incinerator unit exhaust stack as stipulated below.

[Permit #9531-AA008, condition 35 and Exhibits D & E, 3/18/96]
[18 AAC 50.350(d)(1)(D), 6/21/98]

a. The systems shall be installed and calibrated per 40 CFR 60, Appendix B, and Performance Specification 3 & 4. A Quality Assurance Plan shall satisfy the requirements of 40 CFR 60, Appendix F.

(i) CO/O_2 CEM span values not to exceed (NTE) 250 ppm, and NTE 25% O_2.

(ii) A relative accuracy test audit (RATA) must be conducted within 90 operating days of startup each season.

(iii) A 3-point calibration is required every 90 operating days. Calibration gas to be CRM or Protocol 1. Maximum strength is 150 ppm CO and 25% O_2. Calibration can be conducted coincident with a gas cylinder gas audit (CGA).

DAILY CALIBRATION DRIFT LIMITS [1]

Time Period	CO ppm	% O_2	Action Required [4]
6 out of 7 consecutive days [2]	12.5	0.5 [3]	Adjust
One day	25	1.0	Adjust
5 consecutive days	5	1.0	Out of control repair/replace
One day	50	2.0	Out of control repair/replace

[1] based upon a span value of 250 ppm for CO and 21.9% for O_2. To be conducted at the zero and high-level values

[2] 7 – day drift test without adjustment.

[3] for 7 out of 7 consecutive days.

[4] when limit is exceeded.

(iv) A CGA is allowed in lieu of a relative accuracy test audit if the CO averages less than 50 ppm.

(v) For a CGA with CRM or Protocol 1 low range audit gas, the low range CO concentration must be anywhere from 15 to 45 ppm and from 75 to 150 ppm for the high range audit gas.

(vi) Use a CO wand at least every 90 operating days to check for leaking fittings or valves on sample line. Also leak check just after sample line fitting or valve setting is changed.

Permit #9531-AA008, Exhibit D, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

b. Record and report per condition 70, for each monitor, the percentage of time or total hours per six month period the CEM was non-operational, for any reason, during the time the facility was processing material.

c. Record and report, per condition 70, the results of performance specification (3 or 4), cylinder gas audits (CGA), calibration drift and relative accuracy test audits for opacity. Information required in the CGA report is listed in section 9 of 40 CFR 60, Appendix B, specification 2.

d. Monitor and record once per day the afterburner outlet temperature (°F). If the CO or the O_2 monitor is out of service or out of calibration for more than 30 minutes, the secondary combustion chamber outlet temperature shall be recorded every 5 minutes and shall be kept above 1500° F.

[18 AAC 50.350 (g)- (i), 5/3/02]

29.2 Permittee shall certify each continuous emission monitoring system installed as required by condition 29 in accordance with the procedures set out in 40 CFR Part 60, Appendix B, Performance Specification 1, 3, or 4 and 40 CFR Part 60 Appendix F and submit a summary of each quarterly quality assurance audit with the operating report required by condition 70.

[Permit #9531-AA008, condition 36, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

Section 9. Insignificant Sources

This section contains the requirements that the Permittee identified under 18 AAC 50.335(q)(2) as applicable to insignificant sources at the facility. This section also specifies the testing, monitoring, reporting, and recordkeeping for insignificant sources that the department finds necessary to ensure compliance with the applicable requirements. Insignificant sources are not exempted from any air quality control requirement or federally enforceable requirement.

As set out in 18 AAC 50.350(m), the shield of AS 46.14.290 does not apply to insignificant sources.

30. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process, fuel-burning equipment, or an incinerator to reduce visibility through the exhaust effluent by greater than 20% for more than three minutes in any one hour.

[18 AAC 50.050(a)(2) & 18 AAC 50.055(a)(1), 1/18/97]

31. The Permittee shall not cause or allow particulate matter emissions from an industrial process or fuel burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard condition and averaged over three hours.

[18 AAC 50.050(b)(1), 1/18/97]

32. The Permittee shall not cause or allow sulfur compound emission, expressed as SO_2, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

33. Based on reasonable inquiry, the Permittee shall certify compliance with the requirements specified in conditions 30, 31, and 32 as set out in condition 71.

[18 AAC 50.350(m)(3), 6/21/98]

Section 10. Generally Applicable Requirements

34. Asbestos NESHAP. The Permittee shall comply with the requirements set forth in 40 C.F.R. 61.145, 61.150, and 61.152, and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A.

[18 AAC 50.040(b)(3) & 18 AAC 50.350(d)(1), 1/18/97]
[Federal Citation: 40 C.F.R. 61, Subpart M, 12/19/96]

35. Refrigerant Recycling and Disposal. The Permittee shall comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F.

[18 AAC 50.040(d) & 18 AAC 50.350(d)(1), 1/18/97]
[Federal Citation: 40 C.F.R. 82, Subpart F, 7/1/97]

36. Facilities Containing NSPS and NESHAPS Sources. The Permittee shall comply with the requirements of 40 C.F.R. 60 New Source Performance Standards (NSPS), 40 C.F.R. 61 National Emission Standards for Hazardous Air Pollutants (NESHAPS) and 40 C.F.R. 63 National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Source Categories as they apply to the facility.

[18 AAC 50.040(a) & (c), 7/2/00; 18 AAC 50.040(b), 1/18/97; 18 AAC 50.350(d)(1), 1/18/97]

37. Good Air Pollution Control Practice. The Permittee shall do the following for Source ID 1:

a. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

b. Keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format;

c. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.030 & 50.346(b)(2), 5/3/02 & 18 AAC 50.350(f)(2) & (3), 1/18/97]

38. Dilution. The Permittee shall not dilute emissions with air to comply with this permit.

[18 AAC 50.045(a), 1/18/97]

39. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.

[18 AAC 50.346(c), 5/3/02; 18 AAC 50.045(d) & 50.350(g), 1/18/97]

39.1 The Permittee shall keep records of

a. complaints received by the Permittee and complaints received by the Department and conveyed to the Permittee; and

b. any additional precautions that are taken

(i) to address complaints described in condition 39.1 or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

[18 AAC 50.350(h), 5/3/02]

39.2 The Permittee shall report according to condition 49.

40. Main (Kiln) Discharge. The discharge conveyor shall be enclosed by a discharge shed, or any ductwork covering the conveyor shall be vented into that shed. Before aggregate can be transported in an open container, it shall be wetted to at least a surface moisture content of 10%. If the wetting process results in the production of large volumes of dust (from steam evolution) that cannot be contained in the shed, then the shed shall be kept under a negative pressure by ductwork. This ductwork shall exhaust into any part of the process upstream of a dust collector (i.e., the baghouses). If material is to be transferred from the shed to an open stockpile using a front-end loader, the loader's bucket shall be loaded with the minimum disturbance of the stockpile from which it is loading. An alternate method may be proposed for DEC approval. When dumping into a stockpile or onto the ground, the lowest part of a loaded bucket shall be in contact with the stockpile or ground. In other words, the greatest drop distance will be no more than the height of the bucket because this minimum drop distance generates the least dust.

[Permit #9531-AA008, condition 10, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

41. Stockpile Management. Stockpiles that contain more than 3% fines (less than 100 mesh) must be covered to prevent fugitive emissions. The covering can be ice, snow, a weighted down tarpaulin, or fine free aggregate. When transferring from a container to a stockpile, the drop distance shall be minimized and shall be less than the height of the stockpile. In other words, the container lip shall be touching the stockpile or the surface upon which the stockpile will be built. Dry fines shall not be transported in open containers.

[Permit #9531-AA008, condition 10, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

42. Baghouse Ash and Afterburner and Quench Tower Fines. This dust is usually very fine and easily becomes airborne. If handled dry, it must be kept in a covered container. It must be wetted to 10% moisture before being openly transferred from any enclosure on site. Even with that moisture content, it must not be left to dry out in exposed stockpiles. It may only be stockpiled when it is saturated with water or when mixed with sufficient aggregate to protect it from wind exposure and erosion. The afterburner and quench tower ash are also mainly fines, so they shall be treated as baghouse ash.

[Permit #9531-AA008, condition 10, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

43. Road Dust. Any untreated surface that has more than 3% fines shall be wetted to 10% moisture before accepting traffic. A treated surface is one in which surface binders or deliquescent agents reduce the need for watering.

[Permit #9531-AA008, condition 10, 3/18/97]
[18 AAC 50.350(d)(1)(D)]
[18 AAC 50.350(d)(1)(D)]

44. Permittee shall control all sources of fugitive emissions to prevent release of material beyond the property line of the facility, including, but not limited to, the following:

a. Aggregate and other stock piles

b. Conveyors, and load out hoppers

c. Emission control system

d. Roadways under the control of the Permittee.

e. Permittee shall ensure that there are no holes in ducts, shrouds, conveyors, or other equipment which contributes to release of fugitive dust.

[Permit #9531-AA008, condition 9, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

45. Keep records describing all precautions taken to prevent particulate matter from becoming airborne due to any of the activities described in this condition. If the precautions taken by the Permittee are not listed in the State Air Quality Control Plan, also record a statement describing why the Permittee finds the precaution reasonable. Reasonable precautions, as listed in the State Air Quality Control Plan, include:

a. installation and use of hoods, fans, and dust collectors to enclose and vent the handling of dusty materials;

b. use of water or chemicals for dust control in the demolition of existing structures, construction operations, road grading, or land clearing; and

c. application of asphalt, oil, water, or suitable chemicals on dirt roads, material stockpiles and other surfaces which can create airborne dusts.

[18 AAC 50.040(e), 7/2/00 & 18 AAC 50.350(g) – (h), 1/18/97]

46. At least once each month, perform visual surveys of fugitive particulate matter sources by:

46.1 conducting a survey of all bulk materials handling, construction and industrial activities at the facility for the potential of airborne particulate matter in accordance with the procedures listed in 40 C.F.R. 60, Appendix A, RM 22; and

46.2 within 2 days of discovering that particulate matter emissions are leaving the property at a level which potentially could unreasonably interfere with the enjoyment of life or property, be injurious to human health or welfare, animal or plant life, or property, or cause an exceedance of a PM-10 ambient air quality standard or increment contained in 18 AAC 50.010(1) or 18 AAC 50.020(b)(2), initiate corrective actions to prevent emissions from leaving the property; and

46.3 keep contemporaneous records of all visual surveys performed and corrective actions taken to prevent particulate matter emissions from leaving the property; submitting summaries of the records with the facility operating report required by condition 70; and

46.4 report under condition 68 whenever a visual survey reveals that particulate matter emissions at levels specified in condition 46.1 are leaving the property.

[18 AAC 50.350(g) – (i), 1/18/97]

47. Stack Injection. The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, unless approved in writing by the department.

[18 AAC 50.055(g), 1/18/97]

48. Open Burning. The Permittee shall comply with the following requirements when conducting open burning at the facility.

48.1 Open burning of asphalt, rubber products, plastics, tars, oils, oily wastes, contaminated oil cleanup materials, or other materials in a way that gives off black smoke is prohibited without written approval of the department in accordance with the procedures set forth in 18 AAC 50.065.

[18 AAC 50.040(e), 7/2/00, 18 AAC 50.065(b) & 18 AAC 50.350(d)(1), 1/18/97]

48.2 Open burning or incineration of pesticides, halogenated organic compounds, cyanic compounds, or polyurethane products in a way that gives off toxic or acidic gases or particulate matter is prohibited.

[18 AAC 50.040(e), 7/2/00, 18 AAC 50.065(c) & 18 AAC 50.350(d)(1), 1/18/97]

48.3 Open burning of putrescible garbage, animal carcasses, or petroleum-based materials, including materials contaminated with petroleum or petroleum derivatives, is prohibited if it causes odor or black smoke that has an adverse effect on nearby persons or property.

[18 AAC 50.040(e), 7/2/00, 18 AAC 50.065(d) & 18 AAC 50.350(d)(1), 1/18/97]

48.4 Open burning is prohibited in an area if the department declares an air quality advisory under 18 AAC 50.245, stating that open burning is not permitted in that area for the day.

[18 AAC 50.040(e), 7/2/00, 18 AAC 50.065(e) & 18 AAC 50.350(d)(1), 1/18/97]

48.5 When conducting open burning, the Permittee shall ensure that

a. the material is kept as dry as possible through the use of cover or dry storage;

b. before igniting the burn, noncombustibles are separated to the greatest extent practicable;

c. natural or artificially induced draft is present;

d. to the greatest extent practicable, combustibles are separated from grass or peat layer;

e. combustibles are not allowed to smolder; and

f. sufficient written records are kept to demonstrate that the Permittee complies with the limitations in this condition. Upon request of the Department, submit copies of the records.

[18 AAC 50.040(e), 7/2/00, 18 AAC 50.065(a), 18 AAC 50.350(d)(1) & 18 AAC 50.335(g) – (h), 1/18/97]

49. Air Pollution Prohibited. The Permittee shall not cause any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.040(e), 7/2/00; 18 AAC 50.110, 5/26/72; & 18 AAC 50.350(d)(1), 1/18/97]

49.1 Within 24 hours of receiving a complaint that is attributable to emissions from the facility, investigate the complaint, and

49.2 Within 48 hours of receiving a complaint, initiate necessary corrective actions to alleviate or eliminate the cause of the complaint.

[18 AAC 50.240(c) & 18 AAC 50.350(g), 1/18/97]

49.3 Keep records of the date, time, and nature of all complaints received and summary of the investigation and corrective actions undertaken for complaints attributable to emissions from the facility. Upon request of the department, submit copies of the records.

[18 AAC 50.350(h) – (i), 1/18/97]

50. Technology-Based Emission Standard. If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235, causes emissions in excess of a technology-based emission standard[1] listed in condition 35 the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under condition 68 requires information on the steps taken to minimize emissions. The report required under condition 68 is adequate monitoring for compliance under this condition.

[18 AAC 50.235(a) & 50.350(f)(3), 1/18/97]

51. Permit Renewal. To renew this permit, the Permittee shall submit an application under 18 AAC 50.335 no sooner than **November 29, 2005** and no later than **November 29, 2006.**

[18 AAC 50.335(a), 1/18/97]

[1] *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology standard established 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Section 11. General Source Testing and Monitoring Requirements

52. Permittee shall perform a source emission test of Source ID 1 incinerator unit's exhaust for particulate matter, carbon monoxide, and oxygen to ascertain the concentrations and mass emission rates of particulate matter and operation parameters using the methods specified in this condition. The tests shall be conducted after every 30,000 tons of any and all material treated or incinerated, but no later than December 30, 2002. The tests do not need to be conducted more than once per calendar year, unless requested by the department under condition 54.

a. Particulate Matter (gr/dscf and lb/hr): Reference Method 5 specified in 40 CFR 60, Appendix A.

b. Carbon monoxide, CO (ppm corrected to 7% O_2): Reference Method 10 as specified in 40 CFR 60, Appendix A.

c. Oxygen, O_2: Reference Method 3 as specified in 40 CFR 60, Appendix A.

[18 AAC 50.350(d)(1)(D), 6/21/98]
[Permit #9531-AA008, condition 28 & Exhibit C, 3/18/97]

52.2 Permittee shall conduct the source test at the maximum rate of the facility, or maximum anticipated operating rate in accordance with Reference Methods 1 – 5 as specified in 40 CFR 60, Appendix A.

[Permit #9531-AA008, condition 29, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

52.3 Continuous opacity readings must be taken during the test.

[Permit #9531-AA008, condition 29, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

52.4 The source test shall be conducted while charging oily waste at a charging rate at least equal to the maximum oily waste charging rate during the life of the permit prior to this source test.

[18 AAC 50.350(d)(1)(D), 6/21/98]
[Permit #9531-AA008, Exhibit C, 3/18/97]

52.5 Compute and record the PM concentration corrected to 12% CO_2 for each source test run using the following equation:

$$c_{12} = c_s \times (12 \div \%CO_2)$$

Where:

c_{12} is the particulate matter concentration, corrected to 12 percent CO_2, in units of gr./dscf.

c_s is the particulate matter concentration measured during the source test run in units of gr./dscf.

$\%CO_2$ is the percent CO_2 concentration on a dry basis measured during the source test run.

[18 AAC 50.350(g) – (h), 1/18/97]

52.6 Submit the source test plan, notification, and results in accordance with conditions 60, 61, and 62.

[18 AAC 50.350(i), 1/18/97]

a. Report the planned oily-waste charging rate that this source test will be conducted at as part of the source test plan.

[18 AAC 50.350(i), 1/18/97]

b. Report the information recorded under condition 52.5 taken during the source test, with the source test report.

[18 AAC 50.350(i), 1/18/97]

52.7 Report under condition 68 if:

a. Conditions 5.4 or 53.2 requires an excess emission or permit deviation report to be sent to the Department; or

b. the particulate matter concentration from this source test for Source ID 1 results in a violation of the emission limit in conditions 6 and 7.

[18 AAC 50.350(i), 1/18/97]

53. The Permittee shall develop a standard operating procedures manual for the incinerator operators.

53.1 Submit the manual to the department within 6 months after the issue date of this permit.

53.2 After the manual is submitted to the department, report under 68 whenever the incinerator is not operated in accordance with this manual,

[18 AAC 50.350(l), 1/18/97]

54. Requested Source Tests. In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a), 1/18/97 & 18 AAC 50.345(a) & (k), 5/3/02]
[Permit #9531-AA008, condition 34, 3/18/97]
[18 AAC 50.350(d)(1)(D)]

55. Operating Conditions. Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

[18 AAC 50.220(b) & 50.350(g), 1/18/97]

55.1 at a point or points that characterize the actual discharge into the ambient air; and

55.2 at the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.

56. Reference Test Methods. The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

56.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.220(c)(1)(A) & 50.350(g), 1/18/97 & 18 AAC 50.040(a), 8/15/02]
[40 C.F.R. 60, 7/1/01]

56.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.

[18 AAC 50.040(b), 8/15/02; 50.220(c)(1)(B) & 50.350(g), 1/18/97]
[40 C.F.R. 61, 7/1/01]

56.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.

[18 AAC 50.040(c), 5/3/02; 18 AAC 50.220(c)(1)(C) & 50.350(g), 1/18/97]
[40 C.F.R. 63, 4/5/02]

56.4 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9.

[18 AAC 50.030, 5/3/02, 18 AAC 50.220(c)(1)(D) & 50.350(g), 1/18/97]

56.5 Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(4), 8/15/02 & 18 AAC 50.220(c)(1)(E) & 50.350(g), 1/18/97]
[40 C.F.R. 60, Appendix A, 7/1/01]

56.6 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Method 201.

[`18 AAC 50.035(b)(2), 7/2/00; 18 AAC 50.220(c)(1)(F) & 50.350(g), 1/18/97]
[40 C.F.R. 51, Appendix M, 7/1/01]

56.7 Source testing for emissions of any contaminant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.

[18 AAC 50.040(c)(19), 5/3/02 & 18 AAC 50.220(c)(2) & 50.350(g), 1/18/97]
[40 C.F.R. 63, Appendix A, Method 301, 4/5/02]

57. Excess Air Requirements. To determine compliance with this permit, standard exhaust gas volumes must only include the volume of gases formed from the theoretical combustion of fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(c)(3), 18 AAC 50.350(g), 1/18/97 & 18 AAC 50.990(88), 5/3/02]

58. Test Exemption. The Permittee is not required to comply with conditions 60, 61 and 62 when the exhaust is observed for visible emissions by Method 9 Plan (condition 22.1) or Smoke/No Smoke Plan (condition 22.2)

[18 AAC 50.345(a), 5/3/02]

59. Test Deadline Extension. The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.

[18 AAC 50.345(a) & (l), 5/3/02]

60. Test Plans. Except as provided in condition 58, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the source will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under condition 54 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.

[18 AAC 50.345(a) & (m), 5/3/02]

61. Test Notification. Except as provided in condition 58, at least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.

[18 AAC 50.345(a) & (n), 5/3/02]

62. Test Reports. Except as provided in condition 58, within 60 days after completing a source test, the Permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in the manner set out in condition 64. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

[18 AAC 50.345(a) & (o), 5/3/02]

63. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in conditions 6, 7, and 31, the three-hour average is determined using the average of three one-hour test runs.

Section 12. General Recordkeeping, Reporting, and Compliance Certification Requirements

64. Certification. The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted facility following the statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete." Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. When certifying a compliance certification, the official's signature must be notarized.

[18 AAC 50.205 and 50.350(b)(3) & (j), 1/18/97; and 18 AAC 50.345(a) & (j), 5/3/02]

65. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send reports, compliance certifications, and other documents required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician.

[18 AAC 50.350(i), 1/18/97]

66. Information Requests. The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the federal administrator.

[18 AAC 50.200 & 50.350(b)(3), 1/18/97; and 18 AAC 50.345(a) & (i) & 50.350(g) – (i), 5/3/02]

67. Recordkeeping Requirements. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including

67.1 Copies of all reports and certifications submitted pursuant to this section of the permit.

67.2 Records of all monitoring required by this permit, and information about the monitoring including

a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;

b. sampling dates and times of sampling or measurements;

c. the operating conditions that existed at the time of sampling or measurement;

d. the date analyses were performed;

e. the location where samples were taken;

f. the company or entity that performed the sampling and analyses;

g. the analytical techniques or methods used in the analyses; and

h. the results of the analyses.

[18 AAC 50.350(h), 1/18/97]

68. Excess Emissions and Permit Deviation Reports.

68.1 Except as provided in condition 49, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report

(i) emissions that present a potential threat to human health or safety; and

(ii) excess emissions that the Permittee believes to be unavoidable;

b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;

c. report all other excess emissions and permit deviations

(i) within 30 days of the end of the month in which the emissions or deviation occurs, except as provided in conditions 68.1c(ii) and 68.1c(iii);

(ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under condition 68.1c(i); and

(iii) for failure to monitor, as required in other applicable conditions of this permit.

68.2 When reporting excess emissions, the Permittee shall report using either the Department's online form, which can be found at www.dec.state.ak.us/awq/excess/report.asp, or if the Permittee prefers, the form contained in Section 17 of this permit. The Permittee must provide all information called for by the form that is used.

68.3 When reporting a permit deviation, the Permittee shall report using the form contained in Section 17 of this permit. The Permittee must provide all information called for by the form.

68.4 If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

[18 AAC 50.235(a)(2), 50.240(c), & 50.350(i), 1/18/97; and 18 AAC 50.346(a)(3), 5/3/02

69. NSPS and NESHAP Reports. The Permittee shall submit to the department copies of reports required by conditions 29.1a and 34 as they apply to the facility as follows:

69.1 Copies of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10 shall be attached to the facility operating report required by condition 70.

69.2 The Permittee shall notify the department and shall provide a written copy of any U.S. EPA granted waiver of the federal emission standards, record keeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules within 30 days after receipt of a waiver or schedule. Keep a copy of each U.S. EPA issued monitoring waiver or custom monitoring schedule with the permit at the facility.

[18 AAC 50.040, 7/2/00 & 18 AAC 350(i)(2), 1/18/97]
[Federal Citation 40 C.F.R. 60 & 40 C.F.R. 61, 7/1/99]

70. Facility Operating Reports. During the life of this permit, the Permittee shall submit an original and two copies of an operating report by August 1 for the period January 1 to June 30 and by February 1 for the period July 1 to December 31. Facility operating reports must include copies of the records required to be reported by the conditions of this permit. In addition, facility operating reports must include a listing of all excess emissions and permit deviations that occurred during the reporting period and must identify

70.1 the date of the deviation;

70.2 the equipment involved;

70.3 the permit condition;

70.4 a description of the deviation; and

70.5 any corrective action or preventive measures taken and the date of such actions.

[18 AAC 50.350(d)(4), 18 AAC 50.350(f)(3) & 18 AAC 50.350(i), 1/18/97]

71. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an original and two copies of an annual compliance certification report as follows:

[18 AAC 50.350(j), 1/18/97]

71.1 For each permit term and condition set forth in Section 3 through Section 13, including terms and conditions for monitoring, reporting, and recordkeeping:

[18 AAC 50.350(d)(4), 6/21/98]

a. certify the compliance status over the preceding calendar year consistent with the monitoring required by this permit;

b. state whether compliance is intermittent or continuous;

c. briefly describe each method used to determine the compliance status; and

d. notarize the responsible official's signature.

[18 AAC 50.205, 1/18/97 & 50.345(a) & (j), 5/3/02]

71.2 In addition, submit a copy of the report directly to the EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

[18 AAC 50.350(j), 1/18/97]

Section 13. Standard Conditions Not Otherwise Included in the Permit

72. The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for

72.1 an enforcement action;

72.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or

72.3 denial of an operating-permit renewal application.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (c), 5/3/02]

73. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (d), 5/3/02]

74. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (e), 5/3/02]

75. Compliance with permit terms and conditions is considered to be compliance with those requirements that are

75.1 included and specifically identified in the permit; or

75.2 determined in writing in the permit to be inapplicable.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (b), 5/3/02]

76. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (f), 5/3/02]

77. The permit does not convey any property rights of any sort, nor any exclusive privilege.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (g), 5/3/02]

78. The Permittee shall allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to

78.1 enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;

78.2 have access to and copy any records required by the permit;

78.3 inspect any facility, equipment, practices, or operations regulated by or referenced in the permit; and

78.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (h), 5/3/02]

Section 14. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.290, and based on information supplied in the facility application, this section of the permit contains the requirements determined by the department not to be applicable to the permitted facility.

79. The table below, Table 2 Permit Shields Granted., identifies the sources that are not subject to the specified requirements at the time of permit issuance. Some of the requirements listed below may become applicable during the permit term due to an invoking event, even though the requirement is deemed inapplicable at the time of permit issuance. Such requirements shall be met on a timely basis by the Permittee by submittal of a compliance schedule in accordance with 18 AAC 50.350(k).

Table 2 Permit Shields Granted.

Source ID	Non Applicable Requirements	Reason for non-applicability
1	40 CFR 60 Subpart D	Permittee does not engage in Steam Generation.
1	40 CFR 60 Subpart Da	Permittee is not an Electric Utility.
1	40 CFR 60 Subpart Db	Permittee does not have Steam Generating Units.
1	40 CFR 60 Subpart Dc	Permittee does not have Steam Generating Units.
1	40 CFR 60 Subpart E	Permittee does not operate an incinerator according to EPA's definition of solid waste. OIT does not burn municipal type waste; therefore, they do not meet the definition of solid waste.
1	40 CFR 60 Subpart Ea	OIT did not commence construction after December 20, 1989 and on or before September 20, 1994. Also, Permittee does incinerate municipal waste.
1	40 CFR 60 Subpart Eb	OIT did not commence construction after September 20, 1994. Modification or reconstruction was not commenced after June 19, 1996. Also, Permittee does not incinerate municipal waste.
1	40 CFR 60 Subpart Ec	Ec applies only to the state.
1	40 CFR 60 Subpart F	Permittee is not a Portland Cement Plant.
1	40 CFR 60 Subpart I	Permittee is not a Hot Mix Asphalt Facility.
1	40 CFR 60 Subpart J	Permittee is not a Petroleum Refinery.
1	40 CFR 60 Subpart L	Permittee is not a Secondary Lead Smelter
1	40 CFR 60 Subpart N	Permittee does not have a Basic Oxygen Process Furnace.
1	40 CFR 60 Subpart Na	Permittee does not make steel.
1	40 CFR 60 Subpart O	Permittee does not combust wastes containing more than 10% sewage sludge.
1	40 CFR 60 Subpart Q	Permittee is not a Primary Zinc Smelter.
1	40 CFR 60 Subpart R	Permittee is not a Primary Lead Smelter.
1	40 CFR 60 Subpart Y	Permittee is not a Coal Preparation Plant.
1	40 CFR 60 Subpart DD	Permittee is not a Grain Elevator.

Source ID	Non Applicable Requirements	Reason for non-applicability
1	40 CFR 60 Subpart GG	Permittee does not have Stationary Gas Turbines.
1	40 CFR 60 Subpart HH	Permittee is not a Lime Manufacturing Plant.
1	40 CFR 60 Subpart LL	Permittee is not a Metallic Mineral Processing Plant.
1	40 CFR 60 Subpart UU	Permittee is not an Asphalt Processing or Asphalt Roofing Manufacturer.
1	40 CFR 60 Subpart VV	Permittee is not a Synthetic Organic Chemicals Manufacturer.
1	40 CFR 60 Subpart XX	Permittee is not a Bulk Gasoline Terminal.
1	40 CFR 60 Subpart BBB	Permittee is not a Rubber Tire Manufacturer.
1	40 CFR 60 Subpart GGG	Permittee is not a Petroleum Refinery.
1	40 CFR 60 Subpart JJJ	Permittee is not a Petroleum Dry Cleaner.
1	40 CFR 60 Subpart KKK	Permittee is not an Onshore Natural Gas Processing Plant.
1	40 CFR 60 Subpart LLL	Permittee is not an Onshore Natural Gas Processing Plant for SO_2.
1	40 CFR 60 Subpart OOO	Permittee is not a Nonmetallic Mineral Processing Plant.
1	40 CFR 60 Subpart QQQ	Permittee does not have a Petroleum Refinery Wastewater System.
1	40 CFR 60 Subpart UUU	Permittee does not use Calciners and Dryers in the Mineral Industries.
1	40 CFR 60 Subpart WWW	Permittee is not a Municipal Solid Waste Landfill.
1	40 CFR 60 Subpart CCCC	Permittee was not constructed after Nov 30, 1999.
1	40 CFR 60 Subpart DDDD	DDDD applies only to the state.
1	40 CFR 63 Appendix A	Permittee is not subject to NESHAPS.
1	40 CFR 63 Appendix B	Permittee is not subject to NESHAPS.

[18 AAC 50.350(l), 1/18/97]

Section 15. Visible Emission Evaluation Procedures

An observer qualified according to 40 C.F.R. 60, RM 9 shall use the following procedures to determine the reduction of visibility through the exhaust effluent.

Position. The qualified observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented in the 140° sector to his back. Consistent with maintaining the above requirement, the observer shall, as much as possible, make his observations from a position such that his line of vision is approximately perpendicular to the plume direction and, when observing opacity of emissions from rectangular outlets (e.g., roof monitors, open baghouses, noncircular stacks), approximately perpendicular to the longer axis of the outlet. The observer's line of sight should not include more than one plume at a time when multiple stacks are involved, and in any case the observer should make his observations with his line of sight perpendicular to the longer axis of such a set of multiple stacks (e.g., stub stacks on baghouses).

Field Records. The observer shall record the name of the plant, emission location, facility type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet . The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), and plume background are recorded on the sheet at the time opacity readings are initiated and completed.

Observations. Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. The observer shall not look continuously at the plume but instead shall observe the plume momentarily at 15-second intervals. Unless directed to do otherwise in this permit, observe emissions for 60 consecutive minutes to obtain a minimum of 240 observations.

Attached Steam Plumes. When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible. The observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made.

Detached Steam Plume. When water vapor in the plume condenses and becomes visible at a distinct distance from the emission outlet, the opacity of emissions should be evaluated at the emission outlet prior to the condensation of water vapor and the formation of the steam plume.

Recording Observations. Opacity observations shall be recorded to the nearest 5 percent at 15-second intervals on the Visible Emissions Observation Record contained in this section. Record the minimum number of observations required by the permit. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

Data Reduction. To determine compliance with a standard set out in condition 30, count the number of observations that exceed 20 percent opacity and record this number on the sheet.

To determine the six-minute average, divide the observations recorded on the record sheet into sets of 24 consecutive observations. Sets need not be consecutive in time and in no case shall two sets overlap. For each set of 24 observations, calculate the average by summing the opacity of the 24

observations and dividing this sum by 24. If an applicable standard specifies an averaging time requiring more than 24 observations, calculate the average for all observations made during the specified time period. Record the average opacity on the sheet.

Visible Emissions Field Data Sheet

Certified Observer: _____

Company: _____

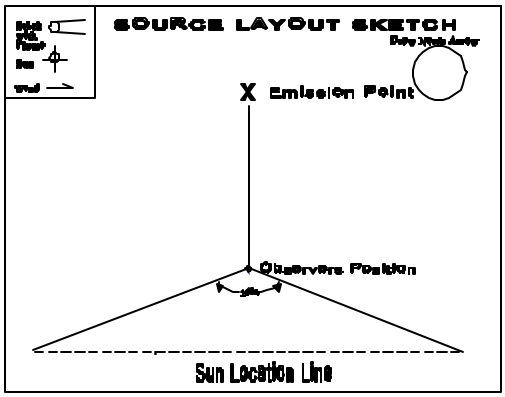
Location: _____

Test No.: _____ Date: _____

Source: _____

Production Rate, Operating Rate & Unit Operating Hours: _____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description: Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

Visible Emissions Observation Record

Page ___ of ___

Company _____ Certified Observer_____

Test Number _____ Clock time_____

Date:		Visibility reduction every 15 Seconds (Opacity)				Steam Plume (check if applicable)		Comments
Hr	Min	0	15	30	45	Attached	Detached	

Additional information:

_____
Observer Signature

Data Reduction:
Duration of Observation Period (minutes) _____
Number of Observations _____
Number of Observations exceeding 20% _____

Average Opacity Summary

Set Number	Time Start—End	Opacity	
		Sum	Average

Section 16. SO_2 Material Balance Calculation

If a fuel shipment contains more than 0.75 percent sulfur by weight, calculate the three-hour exhaust concentration of SO_2 using the following equations:

A = 31,200 X [wt%S_{fuel}] = 31,200 X _____ = _____

B = 0.148 X [wt%S_{fuel}] = 0.148 X _____ = _____

C = 0.396 X [wt%C_{fuel}] = 0.396 X _____ = _____

D = 0.933 X [wt%H_{fuel}] = 0.933 X _____ = _____

E = B + C + D = _____ + _____ + _____ = _____

F = 20.9 – [vol%$_{dry}O_{2,\ exhaust}$] = 20.9 - _____ = _____

G = [vol%$_{dry}O_{2,\ exhaust}$] ÷ F = _____ ÷ _____ = _____

H = 1 + G = 1 + _____ = _____

I = E x H = _____ x _____ = _____

SO_2 concentration = A ÷ I = _____ ÷ _____ = _____ ppm

The wt%S_{fuel}, wt%C_{fuel}, and wt%H_{fuel} are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to condition XI.2. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%$_{dry}O_{2,\ exhaust}$) is obtained from oxygen meters, manufacturer's data, or from the most recent analysis under 40 C.F.R. 60, Appendix A-2, Method 3, adopted by reference in 18 AAC 50.040(a), at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if **wt%S_{fuel}** = 1.0%, then enter 1.0 into the equations, not 0.01, and if **vol%$_{dry}O_{2,\ exhaust}$** = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c), 5/3/02]

Section 17. ADEC Notification Form

Fax this form to: (907) 269-7508 Telephone: (907) 269-8888

OIT, Inc.
Company Name

Moose Creek Facility
Facility Name

Reason for notification:

❑ **Excess Emissions** — *If you checked this box Fill out section 1*

❑ **Other Deviation from Permit Condition** — *If you checked this box fill out section 2*

When did you discover the Excess Emissions or Other Deviation:
Date:__/__/__ Time:__:__

Section 1. Excess Emissions

(a) Event Information (Use 24-hour clock)**:**

	START Time**:** (hr:min):	**END** Time:	**Duration**
Date: _____	_____:_____	_____:_____	_____:_____
Date: _____	_____:_____	_____:_____	_____:_____
		Total:	_____:_____

(b) Cause of Event (Check all that apply)**:**

❑ START UP ❑ UPSET CONDITION ❑ CONTROL EQUIPMENT
❑ SHUT DOWN ❑ SCHEDULED MAINTENANCE ❑ OTHER _____

Attach a detailed description of what happened, including the parameters or operating conditions exceeded.

(c) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device

(d) Emission Limit Potentially Exceeded

Identify each emission standard potentially exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Identify what observation or data prompted this report. Attach additional sheets as necessary.

Permit Condition	Limit	Emissions Observed

(e) Excess Emission Reduction:

Attach a description of the measures taken to minimize and/or control emissions during the event.

(f) Corrective Actions:

Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence.

(g) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable?

❑ YES ❑ NO

Do you intend to assert the affirmative defense of 18 AAC 50.235?

❑ YES ❑ NO

Section 2. Other Permit Deviations

(a) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device

(b) Permit Condition Deviation:

Identify each permit condition deviation or potential deviation. Attach additional sheets as necessary.

Permit Condition	Potential Deviation

(c) Corrective Actions:

Attach a description of actions taken to correct the deviation or potential deviation and to prevent recurrence.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: Signature: Date:

Alaska Department of Environmental Conservation

Air Permits Program

Significant Revision 1: February 13, 2003

OIT, Inc.

Moose Creek Facility

LEGAL AND FACTUAL BASIS

of the terms and conditions for

Permit No. 325TVP01

Prepared by Katherine Stringham

INTRODUCTION

This document sets forth the legal and factual basis for the terms and conditions of Operating Permit No. 325TVP01.

The **Moose Creek Facility** is a high temperature incineration facility that provides thermal treatment of petroleum contaminated soils. The facility is owned and operated by **OIT, Inc.** OIT, Inc. is the Permittee for the facility's operating permit.

PROCESS DESCRIPTION

- As provided in the application, the facility contains one Aqua Guard Technologies, Inc. Thermal Oxidizer Mark III Rotary Kiln with a design capacity/throughput of 30 tons/hour. The rotary kiln includes a Maxon Multi-fire Kiln Burner with a design capacity/throughput of 15 MMBtu/hr installed in 1991, a Maxon Kinemak Secondary Burner with a design capacity/throughput of 8 MMBtu/hr installed in 1991, and two 9'- 9" x 10'- 4" Hosokawa Micron Mikro–Pulsaire Dust Collector baghouses installed in 1991. The sources at the facility regulated in Operating Permit 325TVP01 are identified in TABLE 1 in Section 4 of the permit.

SOURCE INVENTORY AND DESCRIPTION

Section 4 of Operating Permit No. 325TVP01 contains TABLE 1 describing the sources regulated by the permit. The table is provided for information and identification purposes only. Specifically, the source rating/size provided in the table is not intended to create an enforceable limit.

EMISSIONS

Table 1. Emissions Summary

Pollutant	NO_X	CO	PM-10	SO_2	VOC
Potential Emissions (TPY) per AS 46.14.990(21)	22	7	6	78	0
Assessable Potential to Emit (TPY) under condition 2.2	22	0	0	78	0

Potential emissions calculations for particulate matter and CO are based on OIT's source test results conducted in August 2001, where standard stack gas volumetric flow = 3419 dscf/min, PM emissions = 0.05 gr/dscf, and CO = 100 ppm. Sulfur Dioxide and NO_X calculations are based on AP-42, table 1.3-12, where S = 0.5. VOC calculations are based on AP-42, table 1.3-14, using NMTOC = 0.00034 lb/gal.

The assessable potential to emit is simply those regulated air contaminants for which the facility has the potential to emit quantities greater than 10 tons per year.

BASIS FOR REQUIRING AN OPERATING PERMIT

Moose Creek Facility requires an operating permit because it has an air contaminant control unit or system to comply with an emission standard set by 18 AAC 50.050. **Moose Creek Facility** meets the definition of operating permit facility in the state regulations at Section 2.

Alaska regulations require operating permit applications to include identification of "regulated sources." As applied to **Moose Creek Facility**, the state regulations require a description of:

Each incinerator, including a demonstration showing each requirement in 18 AAC 50.050, Incinerator Emissions Standards, that applies [18 AAC 50.335(e)(4)(A)]; and

Sources subject to requirements in an existing DEC permit [18 AAC 50.335(e)(5)].

The emission sources at **Moose Creek Facility** classified as "regulated sources" according to the above DEC regulations are listed in TABLE 1 of Permit No. 325TVP01.

CURRENT AIR QUALITY PERMITS

Previous Air Quality Permit to Operate

On May 29, 2002, Air Quality Operating Permit number 325TVP01 was finalized. On September 4, 2002, several permit conditions were negotiated between OIT and the department to produce Air Quality Operating Permit number 325TVP01, Revision 1. Subsequent to Air Quality Operating Permit number 325TVP01, the most recent permit issued for this facility was permit-to-operate number #9531-AA008. Permit-to-operate number #9531-AA008 includes all construction authorizations issued through March 18, 1996, and was issued before January 18, 1997. All facility-specific requirements established in this previous permit are included in the new operating permit as described below.

Title-V Operating Permit Application History

The owner or operator submitted a Title V application on December 5, 1997.

OIT was issued a GP-4 on June 19, 2001; however, OIT indicated they did not want to be restricted to the conditions in the general permit and submitted a facility-specific operating permit application on July 6, 2001.

Additional information was received on August 16, 2001.

The owner or operator amended this application on September 4, 2001.

The facility-specific operating permit application submitted on July 6, 2001 was declared complete on September 18, 2001.

COMPLIANCE HISTORY

The facility has operated at its current location since 1991. Review of the permit files since issuance of permit #9531-AA008, on March 18, 1996, gave the following results:

- 5/12/96 Notice of Violation (NOV) for malodor.
- 1/17/97 NOV for fugitive dust.
- 2/11/97 Nuisance Abatement order for malodor.
- 2/13/97 Solid Waste NOV numerous permit condition violations (malodor, sludge clean-up, and proper equipment).
- 2/14/97 Emergency Order for imminent or present danger to human health or welfare.
- 3/19/97 Emergency Order dated 2/14/97 is lifted. Operating Permit #9531-A008 is modified to remove any authorization for the processing of municipal sludge.
- 5/30/00 NOV for inaccuracy and tardiness of 1999 Facility Operating Reports.

FACILITY-SPECIFIC REQUIREMENTS CARRIED FORWARD

18 AAC 50.350(d)(1)(D) requires that this permit include each facility specific requirement established in prior permit #9531-AA008. Table 2 below lists the old requirement (condition) and the new condition that carries over the old requirement into the new permit.

Table 2. A comparison of pre-January 18, 1997 Permit No. 9531-AA008 facility-specific conditions to Permit No. 325TVP01 conditions. This table does not include standard and general conditions.

Permit No. 9531-AA008 condition	Description of Requirement	Permit No. 325TVP01 condition	How condition was revised
3	Shall not process any material that is Hazardous Waste	21	Same information.
4	Notify department if relocating	None	Source is no longer transportable.
6 and Exhibit E	May blend On-Spec used oil with virgin oil	9.1	Same information; however, removed 40 CFR 279 requirement because department has no authority to require it.
7	Virgin fuel sulfur content	10	Same information.
8	Heat secondary combustion chamber to 1500°F	12	Same information.
9	Control fugitive emissions	44	Same information
10	Dust control techniques	40	Same information
11	Install indicating manometer on baghouses for gas side pressure drop	16.2	Same information, additional language.
12	Replacement bags for the baghouses shall be on hand.	17	Same information.
13	Operate incinerator unit at a capacity no greater than 30 ton/hr.	13	Same information.
14	Maintain pressure drop in baghouses.	16	Same information, additional language.
15 & 16	Do not treat contaminated soils with a fines content greater than 15%. Contaminated soils refers to soils mingled with hydrocarbon fuels and oils, Therminol 44, and AFFF.	18	Updated information.

Permit No. 9531-AA008 condition	Description of Requirement	Permit No. 325TVP01 condition	How condition was revised
17-21	Municipal Waste Water Sludge	None	Permittee did not apply to incinerate Municipal Waste Water Sludge.
22-27	Municipal Solid Waste	None	Permittee did not apply to incinerate Municipal Solid Waste.
28	Source emission tests.	52	Same information
29	Conduct source test at maximum rate of facility	52.2	Same information
35 and Exhibit D	Install, calibrate, operate, and maintain a CEMS	29.1	Same information.
36	Certify CEMS	29.2	Same information
37	Continuously monitor the pressure drop across the control device.	16.2a	Same information.
38	Install a COMS	4.1	Additional information
39	Install, calibrate, operate, and maintain a continuous feed rate monitoring system.	14	Same information.
40-42 and 44	Excess emission reporting	Section 12	Same information
43	Feed rate monitor malfunctions	15	Same information
45	Provide access to the facility at any reasonable time	78	Same information
46-48, 53	Periodic Reporting	Section 12	Same information
49-51	Coastal Management Program	None	Facility is not transportable and will not be in coastal areas.
52 & 54	Requirements, duties, and obligations & Change of control or ownership.	None	The department has no authority to make these requirements.

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

Conditions 1 - 3, Emission Fees

Applicability: The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions.

Factual Basis: These conditions require the Permittee to pay fees in accordance with the department's billing regulations. The department's billing regulations set the due dates for payment of fees based on the billing date.

The conditions also set forth how the Permittee may recompute assessable emissions. If the Permittee does not choose to annually calculate assessable emissions, emissions fees may be paid based on "potential to emit."

Condition 4 - 5, Visible Emissions Standard

Applicability: This regulation applies to operation of all industrial process equipment in Alaska. Source ID 1 is industrial process equipment.

Factual basis: Condition 4 requires the Permittee to comply with the federal and the state visible emission standards applicable to industrial process equipment and incinerators. The Permittee shall not cause or allow the equipment to violate these standards.

Condition 5 requires the Permittee to complete at least one cycle of sampling and analyzing for each successive 10-second period of source operation, except during COMS breakdown, repairs, calibration checks, and zero and span adjustments. The Permittee shall calculate and record the average opacity for successive one-minute periods from these data. The Permittee shall conduct a zero and span check at least once daily and review the opacity strip chart recorders for potential exceedances of the 20% opacity limit once per hour.

Monitoring – All incinerators with a rated capacity greater than or equal to 2000 pounds per hour are required to install COMS because of the variable nature of the materials being processed. As a back-up method when the COMS is inoperable, the visible emissions may be observed by either Method-9 or the Smoke/No Smoke plans as detailed in Section 6. Corrective actions such as maintenance procedures and either more frequent or less frequent testing may be required depending on the results of the observations.

Recordkeeping - The Permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

Reporting - The Permittee is required to report: 1) emissions in excess of the federal and the state visible emissions standard and 2) deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the facility operating report.

Conditions 6 - 7, Particulate Matter (PM) Standard

Applicability: The PM standard applies to the operation of all industrial process equipment and to incinerators that are capable of processing more than 1000 lb/hr in Alaska. Source ID 1 is an incinerator capable of processing more than 1000 lb/hr, and it is industrial process equipment. The SIP standard for PM applies to all incinerators capable of processing more than 1000 lb/hr and to all industrial process equipment because it is contained in the federally approved SIP dated October 1983.

Factual basis: Conditions 6 and 7 require the Permittee to comply with the state PM (also called grain loading) standards applicable to industrial process equipment and to incinerators capable of processing more than 1000 lb/hr. The Permittee shall not cause or allow these standards to be violated.

Monitoring – The Permittee is required to conduct PM source testing if threshold values for opacity are exceeded.

Recordkeeping - The Permittee is required to record the results of PM source tests.

Reporting - The Permittee is required to report: 1) incidents when emissions in excess of the opacity threshold values have been observed, 2) and results of PM source tests. The Permittee is required to include copies of the results of all visible emission observations with the facility operating report.

Condition 8, Sulfur Compound Emissions

Applicability: The sulfur emission standard applies to operation of all fuel-burning equipment in the State of Alaska. Source ID 1 is fuel-burning equipment. The SIP standard for sulfur dioxide applies because it is contained in the federally approved SIP dated October, 1983.

Factual basis: The condition requires the Permittee to comply with the sulfur emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow the affected equipment to violate this standard.

Sulfur dioxide comes from the sulfur in the liquid, hydrocarbon fuel (e.g. diesel or No. 2 fuel oil). Fuel containing no more than 0.75 percent sulfur by weight will always comply with the emission standard. For fuels with a sulfur content higher than 0.75 percent, the condition requires the Permittee to use Section 16 to calculate the sulfur-dioxide concentration using the equations to show that the standard is not exceeded.

Fuel sulfur testing will verify compliance.

Fuel gas sulfur is measured as hydrogen sulfide (H_2S) concentration in ppm by volume (ppmv). Calculations[2] show that fuel gas containing no more than 4000 ppm H_2S will always comply with this emission standard. This is true for all fuel gases, even with no excess air.

[2] See ADEC Air Permits Web Site at http://www.state.ak.us/dec/dawq/aqm/newpermit.htm, under "Stoichiometric Mass Balance Calculations of Exhaust Gas SO2 Concentration."

Equations to calculate the exhaust gas SO_2 concentrations resulting from the combustion of fuel gas were not included in this permit. Fuel gas with an H_2S concentration of even 10 percent of 4000 ppm is currently not available in Alaska and is not projected to be available during the life of this permit.

Recordkeeping - For Diesel fuel the Permittee is required to record the fuel sulfur content or fuel grade of each shipment and all material balance calculations, and for fuel gas, the H_2S concentration of the fuel gas.

Reporting – The Permittee is required to report as "state" excess emissions whenever the fuel combusted causes sulfur compound emissions to exceed the standards in this condition. The Permittee is required to include the material balance calculations for fuel oil in the excess emissions report.

The Permittee is required to include copies of the records mentioned in the previous paragraph with the facility operating report.

Condition 9, Used Oil

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition prohibits burning Off-Spec used oil. On-Spec used oil may be blended with virgin hydrocarbon fuels used in the primary and secondary burner. Virgin hydrocarbon fuels used in the primary and secondary burner shall have a sulfur content equal to or less than 0.5% by weight. A representative sample of each batch of used oil is to be analyzed using SW-846 test methods for arsenic, lead, cadmium, chromium, total halogens, flash point, and polychlorinated biphenyls (PCBs), prior to blending with the virgin fuel oil. Because of various metal contaminants, used oil may have higher particulate emissions than virgin fuel oil. Staff experience indicates that burning used oil by itself may violate 18 AAC 50.055(b). Used oil is considered on-spec if it has a minimum flash point of 100 degrees Fahrenheit and meets the following concentration levels for total halogens and heavy metals: Cadmium with a maximum of 2 PPM, Arsenic with a maximum of 5 PPM, Chromium with a maximum of 10 PPM, Polychlorinated biphenyls with a maximum of 50 PPM, Lead with a maximum of 100 PPM, and Total halogens with a maximum of 1000 PPM.

Condition 10, Virgin Fuel

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition requires the virgin fuel fired at the facility to have a sulfur content equal to or less than 0.5% by weight.

Condition 11, Recording and Monitoring System

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition requires the Permittee to install, operate, and maintain, in good working order, a continuous system for recording and monitoring all fuel consumed in Source ID 1. Instrument accuracy shall be ±5%.

Condition 12, Afterburner Temperature

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition requires that prior to adding material to the unit, and for 5 minutes after the burner is shut off, the afterburner temperature shall be heated to at least 1500° F and maintained there.

Condition 13, Incinerator Capacity

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition requires the Permittee to operate the incinerator unit at a capacity no greater than 30 tons per hour unless a source test demonstrates compliance at a higher rate.

Condition 14, Installation of Feed Rate Monitoring System

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition requires the Permittee to install, calibrate, operate, and maintain a continuous feed rate monitoring system for recording, on an hourly basis, the burning rate of all contaminated soil treated.

Condition 15, Feed Rate Monitoring System Measurements

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition requires a system for measuring process feed rates. The Permittee shall install, operate, and maintain, in good working order, a system for recording and monitoring all contaminated soil treated.

Condition 16, Baghouse Pressure Drop

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition requires maintenance of a minimum pressure drop range across the baghouses at all times for which the source testing demonstrates compliance.

Condition 17, Baghouse Replacement Bags

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition requires Permittee to have on-site new replacement bags for the baghouses equal to or greater than 10 percent of the total number of bags used in the baghouses. Replacement bags that are subsequently installed shall be replaced within 30 days.

Condition 18, Soil Fines Content

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition states that the Permittee shall not treat contaminated soils with a fines content (200 mesh) greater than 53.4% unless baghouse loading calculations or a source test demonstrates compliance at higher concentration. Contaminated soils refers to soils mingled with hydrocarbon fuels and oils, Therminol 44, and AFFF (fire fighting foam) residue.

Conditions 19, 20, and 21, Excluded Wastes

Applicability: These conditions are carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: Condition 19 prohibits Permittee from processing any solid waste. Solid Waste means refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock.

Condition 20 prohibits Permittee from combusting wastes containing more than 10 percent sewage. Sewage sludge is any solid, semi-solid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage.

Condition 21 prohibits Permittee from processing any material that meets the definition of Hazardous Waste under 40 CFR 261, 18 AAC 62, or requires Federal authorization for treatment under the Toxic Substances Control Act.

Condition 22 - 27 (Section 6), Visible Emissions and PM Monitoring Plan

Applicability: The visible emissions plan applies when the COMS is inoperable. These conditions detail the monitoring, recordkeeping, and reporting required in conditions 4 and 6.

Factual Basis: Each permit term and condition must include MR&R requirements showing verifiable compliance with each permit term and condition. The Permittee must establish by actual visual observations which can be supplemented by other means, such as a defined Facility Operation and Maintenance Program, that the facility is in continuous compliance with the State's emission standards for visible emissions and particulate matter. The correlation between particulate matter and visible emissions that is the basis for this monitoring procedure is discussed under conditions 4 and 6.

These conditions detail a stepwise process for monitoring compliance with the State's visible emissions and particulate matter standards for industrial process sources. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from sources either through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Condition 28 (Section 7), Performance Audits for COMS

Applicability: This condition applies per 18 AAC 50.350(g), 1/18/97 & 50.030(9), 5/3/02

Factual basis: These conditions describe the elements to be included in performance audits for continuous Opacity Monitoring Systems (COMS).

Condition 29, Carbon Monoxide Concentration

Applicability: This condition is carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D).

Factual basis: This condition requires the Permittee to limit the hourly average of carbon monoxide (CO) concentration emitted from Source ID 1 to 100 ppm by volume or less, corrected to 7 percent oxygen, one hour average based on 5 minute average measurements by the Continuous Emission Monitor (CEM).

Conditions 30- 33, Insignificant Sources

Applicability: These general emission standards apply to all industrial processes fuel-burning equipment, and incinerators regardless of size.

Factual basis: Conditions 30 and 31 require the Permittee to comply with the general standards for insignificant sources. The Permittee may not cause or allow their equipment to violate these standards. Insignificant sources are not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance.

Condition 33 requires the Permittee to certify that their insignificant sources comply with applicable requirements.

Condition 34, Asbestos NESHAP

Applicability: The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

Factual Basis: The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with these federal regulations.

Condition 35, Refrigerant Recycling and Disposal

Applicability: Applies if the Permittee engages in the recycling or disposal of certain refrigerants.

Factual Basis: The condition requires the Permittees to comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F, that will apply if the Permittee uses certain refrigerants. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this federal regulation.

Condition 36, NSPS and NESHAP Reports

Applicability: Applies to facilities subject to NSPS and NESHAP federal regulations.

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60 and 40 C.F.R. 61. The permit does not need any MR&R. The reports themselves are adequate monitoring for compliance with this condition.

Condition 37, Good Air Pollution Control Practice

Applicability: Applies to all sources, **except** NSPS regulated sources.

Factual basis: The condition requires the Permittee to comply with good air pollution control practices for all sources.

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

Condition 38, Dilution

Applicability: This state regulation applies to the Permittee because the Permittee is subject to emission standards in 18 AAC 50.

Factual Basis: The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

Conditions 39 - 46, Bulk Material Handling, Construction, and Industrial Activities

Applicability: Bulk material handling requirements apply to the Permittee because the Permittee will engage in bulk material handling, transporting, or storing; or will engage in industrial activity at the facility.

Factual Basis: The underlying regulation, 18 AAC 50.045(d), requires the Permittee to take reasonable action to prevent particulate matter (PM) from being emitted into the ambient air.

Not all facilities have the potential to generate fugitive dust during the life of the permit. The Department will determine whether precautions are reasonable based on a variety of factors, including the distance to the facility boundaries, nature and content of the dust, proximity to neighbors, and the nature of the activity. This condition applies to the types of sources or activities that are likely to generate fugitive dust as identified above. It allows the precautions that are identified under the permit to be appropriate and specific to the activities conducted by the Permittee. There are specific requirements identified in this condition for kiln discharge, stockpile management, baghouse ash and afterburner and quench tower fines, and road dust.

Condition 47, Stack Injection

Applicability: Stack injection requirements apply to the facility because the facility contains a stack or source constructed or modified after November 1, 1982.

Factual Basis: The condition prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Compliance is ensured by inspections because the source or stack would need to be modified to accommodate stack injection.

Condition 48, Open Burning

Applicability: The open burning state regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the facility.

Factual Basis: The condition requires the Permittee to comply with the regulatory requirements when conducting open burning at the facility.

No specific monitoring is required for this condition. Condition 48.5f requires the Permittee to keep "sufficient records" to demonstrate compliance with the standards for conducting open burning, but does not specify what these records should contain.

More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning as a routine part of their business. Also, most of the requirements are prohibitions, which are not easily monitored. Additional monitoring is achieved through condition 49 which requires a record of complaints. Therefore, the department does not believe that additional monitoring is warranted.

Condition 49, Air Pollution Prohibited

Applicability: Technology Based Emission Standard requirements apply to the facility because the facility contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or other “technologically feasible” determinations.

Factual Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activity causes an exceedance of any technology-based emission standard in this permit. The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with condition 68. Excess emission reporting under condition 68 requires information on the steps taken to minimize emissions, the report required under condition 68 is adequate monitoring for compliance with this condition.

Condition 50, Technology-Based Emission Standard

Applicability: Technology Based Emission Standard requirements apply to the facility because the facility contains equipment subject to a technology-based emission standard, such as BACT, MACT, NSPS or other “technologically feasible” determinations.

Factual Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activity causes exceedance of any technology-based emission standard in this permit. The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with condition 68. Excess

emission reporting under condition 68 requires information on the steps taken to minimize emissions, the report required under condition 68 is adequate monitoring for compliance with this condition.

Condition 51, Permit Renewal

Applicability: Applies if the Permittee intends to renew the permit.

Factual Basis: The Permittee is required to submit an application for permit renewal by the specific dates applicable to Moose **Creek Facility** as listed in this condition. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal. No additional requirements are necessary to ensure compliance with this condition.

Conditions 52 - 54, Source Tests

Applicability: Conditions 52 and 53 are carried over from previous operating permit #9531-AA008, 3/18/97 per 18 AAC 50.350(d)(1)(D). Condition 54 applies because this is a standard condition to be included in all permits.

Factual Basis: Condition 52 requires conducting source tests at the maximum rate of the facility, or maximum anticipated operating rate in accordance with Reference Methods 1 – 5 as specified in 40 CFR 60, Appendix A. Also, continuous opacity readings must be taken during the test. Condition 53 requires development of a standard operating procedures manual for the incinerator operators. Condition 54 requires the Permittee to conduct source tests as requested by the Department. Monitoring consists of conducting the requested source test, and no recordkeeping or reporting requirements are necessary to ensure compliance with this condition.

Conditions 55 - 57, Operating Conditions, Reference Test Methods, Excess Air Requirements

Applicability: Apply because the Permittee is required to conduct source tests by this permit.

Factual Basis: The Permittee is required to conduct source test as set out in conditions 55 through 57. These conditions supplement the specific monitoring requirements stated elsewhere in this permit. The test reports required by condition 62 adequately monitor compliance with conditions 55 through 57, therefore no additional MR&R requirements are necessary to ensure compliance with these conditions.

Condition 58, Test Exemption

Applicability: Applies when the source exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), 5/03/02, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Conditions 59 - 62, Test Deadline Extension, Test Plans, Notifications and Reports

Applicability: Apply because the Permittee is required to conduct source test by this permit.

Factual Basis: Standard conditions 18 AAC 50.345(l) - (o) are incorporated through these conditions. Because these standard conditions supplement specific monitoring requirements stated elsewhere in this permit no MR&R is required. The source test itself is adequate to monitor compliance with this condition.

Condition 63, Particulate Matter (PM) Calculations

Applicability: Applies when the Permittee tests for compliance with the PM standard.

Factual Basis: The condition incorporates a regulatory requirement for PM source tests. . Because this condition supplements specific monitoring requirements stated elsewhere in this permit, no MR&R is required to ensure compliance with this condition.

Condition 64, Certification

Applicability: This is a standard condition to be included in all permits. Applies because every permit requires the Permittee to submit reports.

Factual Basis: This condition requires the Permittee to certify all reports submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be **certified** with the facility report, even though it must still be **submitted** more frequently than the facility operating report. This condition supplements the reporting requirements of this permit, therefore no additional MR&R is necessary to ensure compliance with this condition.

Condition 65, Submittals

Applicability: Applies because the Permittee is required to send reports to the Department.

Factual Basis: This condition requires the Permittee to send submittals to the address specified in this condition. Receipt of the submittal at the correct Department office is sufficient monitoring for this condition. This condition supplements the reporting requirements of this permit, therefore no additional MR&R is necessary to ensure compliance with this condition.

Condition 66, Information Requests

Applicability: Applies to all Permittees, and incorporates a standard condition.

Factual Basis: This condition incorporates a standard condition in regulation, which requires the Permittee to submit information requested by the Department. Receipt of the requested information is adequate monitoring.

Condition 67, Recordkeeping Requirements

Applicability: Applies because the Permittee is required by the permit to keep records.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide adequate evidence of compliance with this requirement, therefore, no additional MR&R is required.

Condition 68, Excess Emission and Permit Deviation Reports

Applicability: Applies when the emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

The reports themselves and the other monitoring records required under this permit provide an adequate monitoring of whether the Permittee has complied with the condition. Therefore, no additional monitoring, recordkeeping or reporting is required.

The table below is provided as a convenience for the Permittee to aid in simplifying reporting excess emission and permit deviations.

The reports themselves and the other monitoring records required under this permit provide an adequate monitoring of whether the Permittee has complied with the condition. Therefore, no additional MR&R is necessary to ensure compliance with this condition. Please note that there may be additional federally required excess emission reporting requirements.

Table 3. Excess emissions

Condition	Description	Date of Event / Date Report Submitted
8.4	Report if SO2 emissions calculated under condition 8.3 exceed 500 ppm.	Date of event_____ Date report submitted_____
16.2a.	Submit a report if the conditions exceed those stipulated in condition 16.2b.	Date of event_____ Date report submitted_____
17	Submit a report if new replacement bags for the baghouses drops below 10 percent of the total number of bags used in the baghouses.	Date of event_____ Date report submitted_____
24.2	Report the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and any monitoring that was not performed when required.	Date of event_____ Date report submitted_____
5.4	Submit report whenever four or more one-minute block average opacities in any one-hour period measured by the COMS are greater than 20%; or the COMS is offline for more than 72 hours	Date of event_____ Date report submitted_____
29	Report if the hourly average of carbon monoxide (CO) concentration emitted from Source ID 1 exceeds 100 ppm by volume, corrected to 7 percent oxygen, one hour average based on 5 minute average measurements by the Continuous Emission Monitor (CEM).	Date of event_____ Date report submitted_____
46.4	Submit a report whenever a visual survey reveals that particulate matter emissions at levels specified are leaving the property.	Date of event_____ Date report submitted_____

Condition 69, NSPS and NESHAP Reports

Applicability: Applies to facilities subject to NSPS and NESHAP federal regulations.

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60 and 40 C.F.R. 61. The condition does not need any MR&R. The reports themselves are adequate monitoring for compliance with this condition.

Condition 70, Operating Reports

Applicability: Applies to all permits.

Factual Basis: The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit and does not need any MR&R. The reports themselves are adequate monitoring for compliance with this condition..

The table below is provided as a convenience for the Permittee to aid in simplifying submitting semiannual facility operating reports.

Table 4. Semiannual Facility Operating Reports.

Condition	Description	Reporting Criteria
8.4b	Report the fuel grades received at the facility during the reporting period; fuels with a sulfur content greater than 0.5 percent and/or 0.75 percent; and the calculated SO2 emissions in ppm.	Date and description of deviation_____ Equipment involved_____ Corrective actions_____
9.2	Report the gallons of used oil burned per month; maximum and minimum blending ratio of used oil to fuel oil; and sulfur content of each batch of used oil fuel.	Date report submitted_____
14.1	Report hours operated per month; tons of soil processed per month, and maximum one hour rate each month; pounds of absorbent combusted per month.	Date report submitted_____
16.2b	Submit the maximum, minimum, and daily average for each operating day and the manufacturer's specifications	Date report submitted_____
18	Report the maximum fines content (200 mesh) of all batches of contaminated soils processed during the reporting period.	Date report submitted_____
24.1	Report visible emissions as required by this condition.	Date report submitted_____
5.5	Report if the COMS is offline for more than 72 hours, submit a summary of COMS outages, and include: the anticipated time to repair or replace the COMS, the cause of the malfunction, and time periods the incinerator operated while the COMS was offline.	Date report submitted_____
29.1b	Report for each monitor, the percentage of time or total hours per six month period the CEM was non-operational, for any reason, during the time the facility was processing material.	Date report submitted_____
29.1c	Report the results of performance specification (3 or 4), cylinder gas audits (CGA), calibration drift and relative accuracy test audits for opacity.	Date report submitted_____
29.2	Report each quarterly quality assurance audit for the CEMS.	Date report submitted_____
46.3	Report visual surveys performed and corrective actions taken to prevent particulate matter emissions from leaving the property.	Date report submitted_____
69.1	Copies of any NSPS and NESHAPs report submitted to EPA shall be attached to the facility operating report.	Date report submitted_____

Condition 71, Annual Compliance Certification

Applicability: Applies to all Permittees.

Factual Basis: This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification. Because this requirement is a report, no MR&R is needed.

Conditions 72 - 78, Standard Conditions

Applicability: Applies because these are standard conditions to be included in all permits.

Factual Basis: These are standard conditions required for all operating permits.

Condition 79, Permit Shield

Applicability Applies because the Permittee has requested a shield for the applicable requirements listed under this condition.

Factual Basis: Table 2 of Operating Permit No. 325TVP01 shows the permit shields that the Department granted to the Permittee.

Table 4. Permit Shield Decision

Shield requested for:	Shielded?	Reason for shield decision
40 CFR 60 Subpart D	Yes	Permittee does not engage in Steam Generation.
40 CFR 60 Subpart Da	Yes	Permittee is not an Electric Utility.
40 CFR 60 Subpart Db	Yes	Permittee does not have Steam Generating Units.
40 CFR 60 Subpart Dc	Yes	Permittee does not have Steam Generating Units.
40 CFR 60 Subpart E	Yes	Permittee does not operate an incinerator according to EPA's definition of solid waste. OIT does not burn municipal type waste; therefore, they do not meet the definition of solid waste.
40 CFR 60 Subpart Ea	Yes	OIT did not commence construction after December 20, 1989 and on or before September 20, 1994. Also, Permittee does incinerate municipal waste.
40 CFR 60 Subpart Eb	Yes	OIT did not commence construction after September 20, 1994. Modification or reconstruction was not commenced after June 19, 1996. Also, Permittee does not incinerate municipal waste.
40 CFR 60 Subpart Ec	Yes	Ec applies only to the state.
40 CFR 60 Subpart F	Yes	Permittee is not a Portland Cement Plant.
40 CFR 60 Subpart I	Yes	Permittee is not a Hot Mix Asphalt Facility.
40 CFR 60 Subpart J	Yes	Permittee is not a Petroleum Refinery.
40 CFR 60 Subpart L	Yes	Permittee is not a Secondary Lead Smelter
40 CFR 60 Subpart N	Yes	Permittee does not have a Basic Oxygen Process Furnace.
40 CFR 60 Subpart Na	Yes	Permittee does not make steel.
40 CFR 60 Subpart O	Yes	Permittee does not combust wastes containing more than 10% sewage sludge.

Shield requested for:	Shielded?	Reason for shield decision
40 CFR 60 Subpart Q	Yes	Permittee is not a Primary Zinc Smelter.
40 CFR 60 Subpart R	Yes	Permittee is not a Primary Lead Smelter.
40 CFR 60 Subpart Y	Yes	Permittee is not a Coal Preparation Plant.
40 CFR 60 Subpart DD	Yes	Permittee is not a Grain Elevator.
40 CFR 60 Subpart GG	Yes	Permittee does not have Stationary Gas Turbines.
40 CFR 60 Subpart HH	Yes	Permittee is not a Lime Manufacturing Plant.
40 CFR 60 Subpart LL	Yes	Permittee is not a Metallic Mineral Processing Plant.
40 CFR 60 Subpart UU	Yes	Permittee is not an Asphalt Processing or Asphalt Roofing Manufacturer.
40 CFR 60 Subpart VV	Yes	Permittee is not a Synthetic Organic Chemicals Manufacturer.
40 CFR 60 Subpart XX	Yes	Permittee is not a Bulk Gasoline Terminal.
40 CFR 60 Subpart BBB	Yes	Permittee is not a Rubber Tire Manufacturer.
40 CFR 60 Subpart GGG	Yes	Permittee is not a Petroleum Refinery.
40 CFR 60 Subpart JJJ	Yes	Permittee is not a Petroleum Dry Cleaner.
40 CFR 60 Subpart KKK	Yes	Permittee is not an Onshore Natural Gas Processing Plant.
40 CFR 60 Subpart LLL	Yes	Permittee is not an Onshore Natural Gas Processing Plant for SO_2.
40 CFR 60 Subpart OOO	Yes	Permittee is not a Nonmetallic Mineral Processing Plant.
40 CFR 60 Subpart QQQ	Yes	Permittee does not have a Petroleum Refinery Wastewater System.
40 CFR 60 Subpart UUU	Yes	Permittee does not use Calciners and Dryers in the Mineral Industries.
40 CFR 60 Subpart WWW	Yes	Permittee is not a Municipal Solid Waste Landfill.
40 CFR 60 Subpart CCCC	Yes	Permittee was not constructed after Nov 30, 1999.
40 CFR 60 Subpart DDDD	Yes	DDDD applies only to the state.
40 CFR 63 Appendix A	Yes	Permittee is not subject to NESHAPS.
40 CFR 63 Appendix B	Yes	Permittee is not subject to NESHAPS.